NSF DAY SPEAKERS
From NSF
April 19, 2017

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

Enriqueta Barrera
GEO-Geosciences
Division of Earth Sciences (EAR)
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Enriqueta Barrera received the Ph.D. degree in Geological Sciences from Case Western Reserve University, working in the field of environmental reconstructions using geochemical proxies. She was a professor at the University of Akron before joining the National Science Foundation in 2001. She has participated in the management of several cross-directorate initiatives, and the Critical Zone Observatory program in the Division of Earth Sciences (EAR). She has directed the Geobiology and Low-Temperature Geochemistry program in EAR since its inception more than ten years ago.

Michelle Bushey
MPS—Mathematical and Physical Sciences
Division of Chemistry (CHE)
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Michelle Bushey earned a BA from Oberlin College and then joined the Peace Corps in Kenya. Obtaining a Ph.D. from UNC-Chapel Hill under the direction of Jim Jorgenson, she spent her 25 year academic career at Trinity University in San Antonio, TX. There she was involved with raising over $3M in grants and awards. One hundred and five high school and undergraduate students worked in her lab. Her recent research includes fundamental studies of polymeric stationary phases used in capillary separations, and the application of analytical chemistry to cultural heritage issues. Her work in this area has taken her to the San Antonio Museum of Art and the Alamo. She joined NSF in 2014 and converted to permanent status in 2016.

Joan Ferrini-Mundy
O/D—Office of the Director
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Joan Ferrini-Mundy is NSF's acting chief operating officer. Since 2011, she has served as the assistant director for Education and Human Resources (EHR). Additionally, at NSF she was the inaugural division director of the Division of Research on Learning in Formal and Informal Settings. She served as ex officio member of the U.S. President's National Mathematics Advisory Panel and co-chaired its Instructional Practices Task Group. She was a member of the Mathematics Expert Group of the Programme for International Assessment. Currently, she is co-chair of the White House National Science and Technology Council's Federal Coordination in STEM Education Task Force. Prior to coming to NSF, she was a University Distinguished Professor of Mathematics Education at M9ichigan State University. She holds a Ph.D. in mathematics education from the Department of Mathematics of the University of New Hampshire. She was elected a fellow of the AAAS and is a member of the Executive Committee of the Association of Women in Mathematics. She began her career as a high school mathematics teacher.

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Kevin M. Lee
EHR—Education and Human Resources
Division of Undergraduate Research (DUE)
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Kevin M. Lee is a Research Associate Professor from the University of Nebraska – Lincoln on rotation at NSF. He has a joint appointment at UNL in the Department of Physics and Astronomy and the Center for Science, Mathematics, & Computer Education. He primarily works on developing technology-based teaching materials for the introductory astronomy classroom. These materials include simulations, a database for peer-instruction, animated ranking and sorting tasks, and videos of demonstrations commonly performed in the Introductory astronomy classroom. His teaching makes use of all of these in addition to web-based assessment and "flipping."

Joe Miller
OISE – Office of International Science and Engineering
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Joe Miller has been at the NSF since 2013. He spent the first three in years the Biological Sciences (BIO) directorate before moving to OISE last summer. Miller manages the Australia, New Zealand and part of the Southeast Asia portfolio for the office. As a biologist he also works closely with the BIO directorate on international initiatives. He is a plant systematist and biogeographer with an interest in biodiversity informatics and data. He worked as a Senior Research Scientist at the Australian National Herbarium and studies the Australian flora, which is as interesting if not more interesting than the fauna.

Triantafillos J. (Lakis) Mountziaris
ENG — Engineering
Division of Chemical, Bioengineering, Environmental and Transport Systems (CBET)
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"T.J." Mountziaris is a professor of chemical engineering at the University of Massachusetts-Amherst and program director for process systems, reaction engineering and molecular thermodynamics. He earned a Ph.D. in chemical engineering from Princeton University and was a faculty member at SUNY-Buffalo from 1989 to 2005. From 2003 to 2005 he served as the program director for NSF's particulate and multiphase processes. From 2005 to 2014 he served as head of chemical engineering at the University of Massachusetts-Amherst. His research interests include reaction engineering and reactor design, synthesis of electronic and photonic materials, biosensors, and multi-phase flows.

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Robert E. O'Connor
SBE—Social Behavioral Economic Sciences
Social and Economic Sciences (SES)
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Robert O'Connor has been directing the Decision, Risk and Management Sciences Program since 2001. He also serves on the management teams for two competitions: he Decision Making under Uncertainty for Climate Change centers and two competitions: Critical Resilient Infrastructure Systems and Processes; and Innovations at the Nexus of Food, Energy, and Water Systems. Prior to coming to NSF, Bob was a professor of political science at the Pennsylvania State University. The Department of Energy, EPA, NOAA, and NSF funded his research into public perceptions of cumulative, uncertain long-term risks such as climate change. He earned his undergraduate degree at Johns Hopkins University and his doctorate in political science at the University of North Carolina at Chapel Hill.

Yan Solihin
CISE – Computer Information Sciences and Engineering
Division of Computer and Network Systems (CNS)
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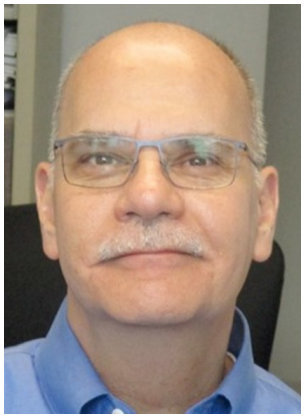
Yan Solihin manages the Computer Systems Research (CSR) cluster, eXploiting Parallelism and Scalability (XPS), and Secure and Trustworthy Cyberspace (SaTC), among his responsibilities. He is a professor of electrical and computer engineering at North Carolina State University. He obtained his B.S. in computer science from Institut Teknologi Bandung, B.S. in mathematics from Universitas Terbuka Indonesia, M.A.Sc in computer engineering from Nanyang Technological University, and M.S. and Ph.D. in computer science from the University of Illinois at Urbana-Champaign. He is a recipient of 2010 and 2005 IBM Faculty Partnership Award, 2004 NSF Faculty Early Career Award, and 1997 AT&T Leadership Award. He is listed in the HPCA Hall of Fame, and is a senior member of the IEEE.



Bill Zamer
BIO - Directorate for Biological Sciences
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Bill Zamer joined the Division of Integrative Organismal Systems in 2000 as a program director managing animal physiology core programs. He received a bachelor's in biology from Juniata College, and studied ecophysiology of marine invertebrates at the College of William & Mary (M.A.), and the University of Maine (Ph.D.). After a postdoc at Iowa State University, he was on the faculty at Lake Forest College for a decade. He has facilitated community discussions and workshops about Grand Challenges in Organismal Biology since 2009. He is leading discussions about development of the EDGE program (Enabling Discovery through Genomic Tools). He is co-lead for the multi-disciplinary activity Rules of Life.

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Lisa-Joy Zgorski
O/D—Office of the Director
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Lisa-Joy Zgorski is a public affairs specialist and NSF Days lead. Since joining NSF in 2007, she has worked on behalf of offices and directorates throughout the foundation and the National Science Board. Her beats have included NSF's International office, SBE, CISE, Physics and Astronomy. Lisa-Joy served as a legislative aide for U.S. Rep. Barbara Kennelly (CT); press secretary for the U.S. Patent and Trademark Office and (then-candidate) Gov. Dan Malloy of Connecticut, and as a public affairs specialist in the press offices of U.S. Commerce Secretary Ron Brown, the Office of Management and Budget and The Century Foundation. She holds an M.P.P. from Harvard's Kennedy School of Government; an A.B. from Mount Holyoke College; and certificates in policy studies from Dartmouth College and the Charles University Law Faculty in Prague.

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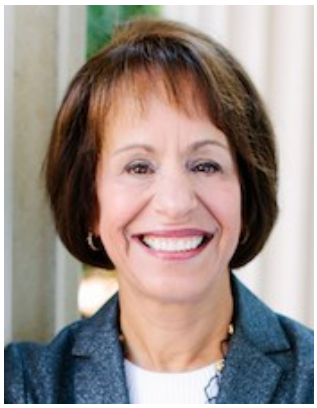
UNC CHAPEL HILL LEADERSHIP
April 19, 2017

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL



Carol Folt
Chancellor
University of North Carolina Chapel Hill

Carol L. Folt is the 11th chancellor, and the 29th chief executive, of the University of North Carolina at Chapel Hill. She is an internationally recognized life scientist, award-winning teacher and accomplished academic leader. Folt came to Carolina from Dartmouth College, where she was interim president in 2012 to 2013 and served as a faculty member in the Department of Biological Sciences and academic leader. Folt and her students' pioneering work on the effects of dietary mercury and arsenic on human and ecosystem health led to numerous changes in national and global policy and consumption advisories around the world. She graduated from the University of California, Santa Barbara, earning both a B.S. in aquatic biology and a M.S. in biology. She received her Ph.D. from the University of California, Davis and undertook a postdoctoral fellowship at Michigan State University before joining the faculty at Dartmouth.

Terry Magnuson
Vice Chancellor for Research
University of North Carolina Chapel Hill

Terry Magnuson, Sarah Graham Kenan Professor and founding chair of the UNC Department of Genetics, became UNC's VCR on July 1, 2016. In this role, he leads a campus-wide research program that attracted nearly $1 billion in contract and grant funding in fiscal 2014; connects academic units across campus with university priorities; and manages research support offices as well as 16 centers and institutes. A geneticist who studies chomatin and gene expression in various diseases, he joined the UNC School of Medicine in 2000 to create its $245 million-backed genetics and genomics program. He also directed the pan-campus Carolina Center for Genome Sciences, developed the Cancer Genetics Program within the Lineberger Comprehensive Cancer Center, and in 2010 was named vice dean for research in the School of Medicine.

NSF DAY SPEAKERS
LUNCH PANALISTS
April 19, 2017

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

Laurie McNeil
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Laurie McNeil is the Bernard Gray Distinguished Professor in the Department of Physics and Astronomy at UNC-CH. She joined the department in 1984, and served as its chair in 2004 to 2009. An optical spectroscopist, her research has received support from NSF, DOE, Army Research Office, Office of Naval Research, and the Research Corporation. Her current projects include studies of electron-phonon coupling and transport in organic semiconductors, and Brillouin scattering measurements of the elasticity of the extracellular matrix in relation to metastasis. Over the past decade she has led the transformation of her department's introductory courses to utilize best practices from education research, with support from NSF.

Sheila Patek
Associate Professor
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Sheila Patek received her A.B. with honors in Biology from Harvard University followed by a Ph.D. in Biology from Duke University. She was then awarded a Miller Postdoctoral Fellowship at UC Berkeley. She has received several honors, including a Guggenheim Fellowship, the George A. Bartholomew Award for distinguished contributions to comparative physiology, a Radcliffe Fellowship, an NSF CAREER award, and the Brilliant 10 award from Popular Science magazine. Her research has been funded by the NSF, National Geographic Society, Hellman Family Foundation, Armstrong Fund for Science, Army Research Office Multi University Research Initiative and others.

Kihyun "Kelly" Ryoo
Assistant Professor of Learning Sciences
School of Education
University of North Carolina at Chapel Hill

Kelly Ryoo engages in research that focuses on promoting equity for all students, including English Language Learners (ELLs) who speak a language other than English at home, in science education through the design and use of interactive dynamic visualizations. Her current project, supported by an NSF CAREER grant, explores how visualization technologies can help linguistically diverse students engage in discourse-rich science practices to develop a coherent understanding of energy and matter in physical science and life science. In 2014, Ryoo received National Academy of Education/Spencer Postdoctoral Fellowship, one of the most competitive awards in the field of education research worldwide.

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Avner Vengosh
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Avner Vengosh and his research team have been engaged in studying water quality issues in numerous sites around the world related to contamination of water resources. His team has developed and utilized geochemical and isotope tracers that help to delineate the sources and reconstruct the pathways of water contamination. Since 2009, he has also been engaged in research of the water-energy nexus and has pioneered several research projects and on the environmental effects of hydraulic fracturing, coal mining, and coal ash disposal. He received his Ph.D. from Australian National University in Australia; and his M.S. and B.S. from Hebrew University of Jerusalem in Israel.